

### **ABSTRACT**

Methods and apparatus for eliminating instability in intelligent assist devices are disclosed. The intelligent assist device includes an overhead motorized moveable trolley, a support that extends downwardly from the trolley to a payload, and a sensor operatively coupled to the support to sense a characteristic of motion imparted by a human operator to the device. A controller is operatively coupled with the sensor and the trolley to control movements of the trolley. The controller estimates an amount of oscillation in the support that does not correspond to the motion imparted by the human operator and adjusts movements of the trolley based thereon.